1859.

BOARD OF WORKS

FOR

The District of St. Olave, Southwark.

THIRD

ANNUAL REPORT

ON THE

SANITARY CONDITION OF THE DISTRICT,

For the Year ending March, 1859,

BY

J. NORTHCOTE VINEN, M.D.,

MEDICAL OFFICER OF HEALTH.

Printed by order of the Board.

London:
PRINTED BY J. ROBINS, 57, TOOLEY STREET, SOUTHWARK.

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THIRD ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

TO THE BOARD OF WORKS FOR THE DISTRICT OF ST. OLAVE, SOUTHWARK.

April, 1859.

GENTLEMEN,

I beg to lay before you a tabular statement of the sanitary condition of the district, as well as a general summary of the sanitary work carried out during the year ending March 26th, 1859; from which may be seen the actual causes of death, and a comparison of the births and deaths in each quarter of the year, and the parish in which they occurred. The total number of deaths within that period was 1,109; but from this must be deducted those unconnected with the district, which took place in Guy's and St. Thomas's Hospitals, amounting to 644, reducing it to 465; but if we still further deduct the deaths of 11 strangers from drowning in the river, whose bodies were brought ashore in the district, and 16 resulting from some other violent cause, the correct mortality from disease in the 52 weeks will be 438: 161 of these occurred in the sub-district of St. Olave, and 277 in the sub-district of St. John. The mortality, therefore, is less by 12 than was recorded in 1858.

London is divided for registration purposes into five groups of districts The mortality is lightest in the West District, which in 1858 was about 21½ per 1,000; in the South Districts, in which we are included, it was 24¼ per 1,000; and in all London it was at the rate of 23½ per 1,000. It may be useful, for the sake of comparison, to state also the death-rate of some of our larger towns. The average of 7 years has been in Birmingham 26, in Manchester 31, and in Liverpool 32 per 1,000. But if we estimate the amount of our population to be the same as at the last census, the death-rate of the past year will be in the proportion of something less than 23 to every 1,000 living persons, and proves that the relative healthiness of the district has been fully maintained.

The deaths (Table III.) were pretty equally divided between the sexes, there having occurred 237 among males, and 228 among females. They were distributed in the following manner, according to age:—Deducting 4 caused by violence, no less than 214 occurred among children under 5 years, or very nearly 50 per cent. of the entire number; more than one-half of these had not attained their first year. There were 36 deaths between 5 and 20, 61 between 20 and 40, 59 between 40 and 60, 54 from 60 to 80, and 14 from 80 upwards.

One hundred and twenty deaths were returned in the first quarter, 138 in the second, 113 in the third, and 94 in the fourth. The quarter from March to the end of June was therefore that in which the greatest mortality occurred.

There were 63 deaths in the workhouse during the past year; and 4,132 new cases of sickness came under treatment in the pauper practice of the Union, which number exceeds the average of two previous years by 350. This increase does not appear to be caused by any greater amount of disease than in former years, but arises from an entry being made of every trifling case in which medical relief is administered, and which, I am informed, is often obtained for the sole purpose of procuring relief of another kind.

The births registered during the 12 months were, 316 males, 296 females—together, 612; 221 of which belong to the sub-district of St. Olave, and 391 to the sub-district of St. John. The births therefore exceeded the deaths by 147.

The mean temperature of the air was 49 degrees, being about the average. The remarkable dryness of the year is shown by the amount of rainfall, which was about 17 inches, being 7 inches less than the average. These averages are taken from a period of nearly 20 years.

On examining the causes of death, it will be seen that zymotic diseases have been fatal in 89 cases, 75 of which were among children under 5 years of age. This number is somewhat in excess of that which occurred last year, and chiefly from the great prevalence of measles, 28 deaths having been returned from this cause alone. The mortality from scarlet fever was 14. This is a disease which is always more or less prevalent among large communities, and, probably, may never entirely disappear. It is also of a very uncertain nature, often putting on a malignant and fatal character even under favourable circumstances. Few diseases are more highly contagious than scarlet fever, or are more readily conveyed by diseased persons, or by those who have been in contact with them. The practice is too common for persons, in whose families this disease is prevailing, to be careless of mixing with others themselves, or of sending their children to mix with others at school. I have often known the disease to have been conveyed in this manner to whole families—to terminate in a lengthened sickness and death.

The mortality from scarlet fever in 1858 in the metropolis was 4,118, being at the rate of one to every 590 persons; whereas with us but little more than one in 1,400 fell victims to this malady. Thirteen deaths took place from whooping cough; 18 from diarrhœa, of which all but 2 were infants; and 15 were returned under the collective term of fever; but this number includes those from the remittent fever of children, ague, and child-bed fever. Two only were returned as true typhoid. On turning from diseases of the zymotic class, we find that the greatest mortality has been from pulmonary and abdominal consumption, different affections of the respiratory organs, and the nervous diseases of children, numbering together 212 deaths. To phthisis, or pulmonary consumption, is due 57 of these, and 29 to tabes, or abdominal consumption. Eighty-two deaths occurred from other affections of the lungs—chiefly bronchitis, of which 38 children under their fifth year were victims. The nervous diseases of children were fatal in 44 cases, all under 5 years of age. Among the remaining causes of death were 18 from diseases of the heart; 34 from disease of the brain, apoplexy, &c.; 11 from old age; 8 from premature death; and 27 from violence. I have mentioned that 57 deaths were caused by that prevalent and lamentable disease phthisis, or pulmonary consumption. Although this disease plays its most conspicuous part in the lungs, "the pulmonary consumption is no more than a fragment of a great constitutional malady," which is engendered or called forth by whatever tends to depress the vital powers, and permanently to weaken the body, especially in a frame already predisposed by hereditary taint. Hence, as might be expected, the greatest mortality from this and its allied disease, abdominal consumption, occurred in the courts and alleys where, in addition to the existence of other depressing causes, the atmosphere breathed by so many families, who crowd together in single rooms, is of an intensely fusty and unwholesome character. Each of those who died of these affections may probably have been born with the hereditary seeds of disease; yet it needed perhaps some of the many debilitating influences that exist in a large and crowded city to light up the embers of a fatal malady, and to which they may, in some degree, be considered as so many victims; for overcrowding and imperfect ventilation are causes that always largely increase the mortality from these diseases. Phthisis is a disease which will, probably, always prevail; but it is also one that may be ameliorated by the avoidance of those habits which call it into play, and by guarding against those defects of constitution on which its development often depends. Air naturally becomes impure by being breathed over and over again; for, at each time we breathe, we give out at least 15 cubic inches of impure air. Unless this is removed, and a renewed supply of a purer atmosphere provided, by proper ventilation, the blood cannot undergo the changes it should do at each respiration; it is imperfectly oxygenized, and cannot get rid of the superfluous carbon which it

is the province of the lungs to eliminate. This is a most efficient cause of modifications in the state of health, and a most prolific source of disease; for it is not only in its general physiological effects on the system that the evils of living in and breathing a vitiated atmosphere are seen, but also in their more direct influence in the propagation of diseases of a contagious character. Some time since I had occasion to bring under your notice a marked instance in proof of this, which occurred in a house occupied by no less than 60 persons, where scarlet fever broke out and rapidly spread under such fostering circumstances.

Passing on from the mortality of the district to the sanitary operations undertaken with a view to reduce it, the following is a summary of the improvements effected:—

608 Houses were inspected.
168 Drains constructed and repaired.
132 Traps fixed.
35 Cesspools abolished.
9 New water-closets erected.
48 Water-closets furnished with pans and traps.
161 Supplied with water.
132 New dust-bins constructed.
243 Yards paved, repaired, or lime-washed.
93 Water receptacles provided.
78 Houses cleaned thoroughly and lime-washed.
15 Houses ventilated.

It is hardly necessary to comment on the importance of the above figures, indicating, as they do, so large an amount of improvement in the sanitary condition of the dwelling-houses in the district, nearly the whole of which was quietly done, and with scarcely any necessity for appeal to the Magistrate. To the untiring perseverance of your Inspector, in carrying out the orders made by your Board, as well as in seconding my endeavours, this good result may in a great measure be attributed. It is impossible to overestimate the sanitary importance of a proper system of house drainage, an ample supply of water, the erection of covered dust-bins, paving and lime-washing yards, &c. But of all the improvements effected, none exceeds in importance those depending on the emptying and filling up of cesspools. Since I have had the honour to be your Officer of Health, no less than 418 of these concentrations of abomination have been utterly abolished. These figures represent the removal of so many sources of poison to the surrounding atmosphere, as well as fruitful sources of disease; for the ill effects resulting from cesspools are not imaginary—they do not merely offend the sense of smell, but they undermine the health, and engender such diseases as fever and diarrhœa. And yet it has sometimes been gravely propounded that a great

error has been committed by abolishing cesspools, and by carrying the drainage into the river; and it has even been recommended that they should be re-established in all their full-blown nastiness at the expense of the rates. The return to such unwholesome practices would be a false and retrograde movement indeed. There can be no doubt that the large increase of sewage carried into the Thames has been the great source of its present polluted state; but I believe it to be far less deleterious to health diluted by the mass of water in the river, than if it were to continue in its concentrated form to give out noxious and deadly vapours, in the "pest pits" that formerly existed so numerously. It has often been said that "out of evil comes good," and that "when matters are at their worst they begin to mend;" and so it is with the state of the river, which having attained its maximum degree of filth last summer, the complaints respecting it became so universal that it no doubt had the effect of hastening the adoption of some plan for the diversion of sewage from its stream: thus the very magnitude of the evil worked its own cure. The works in connection with this plan having been commenced some months since, it is to be hoped they will progress uninterruptedly, until the metropolis is free from so foul a blot.

I have frequently received complaints from persons living near the open gratings in the streets of the nuisance occasioned by the sewer gases escaping from them to be carried through the open doors and windows into the houses. For remedying this evil, I believe, we are almost powerless, the ventilation of sewers being still one of the vexed questions of the day, although the necessity for something to be done to remove this serious cause for complaint is very great. I have before pointed out how dangerous it is to inhale sewer gas, even when largely diluted with atmospheric air; for there exists ample proof of the danger of respiring air into which emanations from sewers have been diffused to the extent that no trace of them can be discovered by the sense of smell.

During the year, notices of application to license 9 slaughter-houses were received, 8 of which were granted by the Magistrates. Three licenses were for a time suspended until certain improvements to the premises which were requisite had been effected. I am happy to find the Magistrates now refuse to license any slaughter-house until it is put, as far as possible, in a state satisfactory to the Local Boards and their officers.

The burial grounds and vaults were specially reported on during the past year, and the recommendations I then submitted to your Board have since been nearly all most satisfactorily carried out. Those with regard to the vaults under St. Thomas's Church and Maze Pond Chapel have been most fully acted on; and I need only point to the Old Burial Ground in Tooley-street, the ornamental as well as the sanitary condition of which has been so largely improved. The vaults under St. John's Church alone remain

untouched. An order to fill up and permanently close these has been received from the Government, the compliance with which is postponed until after the heat of summer is passed.

The determination of your Board to erect drinking fountains in different parts of the district will be received with great satisfaction. Wherever drinking fountains have been erected they appear to be largely used, and well appreciated; and if they should be of any avail in reducing the recourse to the excitement of drams, and the stupor of intoxication, which are often sought by the poorer classes as a relief from the low spirits and bodily depression brought on by breathing an unhealthy atmosphere, they will then prove a great boon to the neighbourhood. In my monthly reports I have laid before you analyses of the water supplied by the Southwark Company, showing it to be a very fair specimen of drinking water, and very far superior to that obtained from the public pumps in the district, of which there are three, one situated in Potter's-fields, one in the Broadway, St. Thomas's, and one in St. Thomas's-street, adjoining the Church. An analysis of the water obtained from these pumps shows their composition to be as follows:—

WATER FROM PUMP IN POTTER'S-FIELDS.

Total impurity per gallon	116·08 grains.
Organic impurity	11·60 „

Contains much Nitric Acid.

FROM THE PUMP IN THE BROADWAY.

Total impurity per gallon	82·24 grains.
Organic impurity	7·68 „

Contains much Nitric Acid.

FROM THE PUMP IN ST. THOMAS'S-STREET.

Total impurity per gallon	89·70 grains.
Organic impurity	10·40 „

Contains much Nitric Acid.

For the purpose of comparison I add the composition of the water supplied by the Southwark and Vauxhall Company; and, although this varies slightly at times, on an average it contains of

Total impurity per gallon	16·84 grains.
Organic impurity	1·76 „

On comparing these it will be seen that the best of the well waters contains nearly *five times* as much impurity as that furnished to the district by the Southwark and Vauxhall Company. But, notwithstanding the large amount of impurity contained in them, they are all bright and clear when first drawn, and are much esteemed for drinking purposes. The most important contamination is that by nitric acid, of which they each contain a considerable

quantity, and which is always found to exist in the shallow wells of London and other crowded localities. This is formed by the decomposition of animal matter, such as the soakage from cesspools, sewers, refuse heaps, burial grounds, and many other sources existing in the neighbourhood of human habitations. Within the last two years there were three large cesspools but a few feet from the well in the Broadway, which must have considerably affected the purity of the water; and the large quantity of nitric acid in the water from the well in Potter's-fields is doubtless derived, in a great measure, from the decomposition of animal matter in the adjacent burial ground. I believe it would be better for the public health if the use of these pumps were discontinued, and replaced by the water supplied by the Company, which would no doubt be the case if their impurity were generally known.

I wish particularly to draw your attention to a striking instance of the direct benefit derived from the sanitary improvements effected in the district under the direction of your Board. The prevalence of fever in any locality is generally, and not unjustly, considered a measure of the sanitary condition of that locality. Previous to 1856, and before the adoption of any regular system of sanitary operations, to quote the words of the late Relieving Officer to the Union, "We were frequently inundated with malignant fevers in several localities of the union: such places as Jacques-buildings, Brewer's-court, Griffith's-rents, Marble-court, Grievison's-rents, Unicorn-yard, and some others, were quite hotbeds of malignant fever, some of which were scarcely ever free from it, attended by frequent deaths; and from one house alone 13 persons were removed at one time, several of whom died; but since the introduction of sanitary measures, fever cases have been less frequent and less fatal." He also adds: "A much better state of health now exists in all the poor localities than formerly existed." This statement of the late Relieving Officer is confirmed by the fact, that, previous to 1856, the Guardians never sent fewer than from 30 to 50 cases of fever to the Fever Hospital every year. In 1856 but 16 cases were sent there, in 1857 there were 10, and in 1858 only 6. I believe we are fairly justified in attributing this large diminution of disease to the sanitary efforts which have been made during the last three years; for fever, more, perhaps, than any other disease, owes its development to bad sanitary arrangements, by remedying which it may be lessened, or altogether prevented. How great an amount of misery, bereavement, and destitution, may thus have been spared to many a poor family; and as the mortality from fever befals, for the most part, persons in the prime of life, they probably leave a lengthened charge of widowhood and orphanage entailed on the rates.

Were this the only benefit to which we could point as the result of our exertions it would be highly encouraging, and a powerful inducement to persevere in the fulfilment of those duties which have for their object the

prevention of disease, and the preservation of life. Although we may not expect to raise such localities as this to the condition of the healthy parts of Northumberland or Sussex, there is yet abundant proof that much may be done towards lessening the influence of those numerous causes of disease which are continually at work, and which the well-sustained efforts of sanitary science may even entirely remove in many cases, and may mitigate in all.

I have the honour to be,

Gentlemen,

Your very obedient Servant,

J. NORTHCOTE VINEN, M.D.,

Medical Officer of Health.

TABLE I.

CAUSES OF DEATH.	AGES.							Total, At all Ages.
	Under 1 Year.	1 Year and under 5.	5, and under 20.	20, and under 40.	40, and under 60.	60, and under 80.	80, and upwards.	
Small Pox	...	1	...	...	...	...	...	1
Scarlatina	...	12	2	...	...	...	...	14
Measles	7	21	...	...	...	...	...	28
Whooping Cough	2	10	1	...	...	...	...	13
Fever	1	5	5	1	3	...	...	15
Consumption, Pulmonary and Abdominal	17	10	10	32	16	1	...	86
Bronchitis, Inflammation, and other affections of the Lungs	19	19	4	4	13	21	2	82
Hydrocephalus, Convulsions, Teething, &c.	30	14	...	...	...	...	...	44
Diarrhœa	13	3	...	2	...	...	...	18
Disease of the Heart	1	...	1	4	7	5	...	18
Disease of the Brain	5	2	2	4	3	5	...	21
Apoplexy, &c.	...	...	...	1	2	9	1	13
Premature Birth and Debility	8	...	...	...	...	...	...	8
Violence	4	...	7	7	6	3	...	27
Other Causes	7	7	11	13	15	13	11	77
	114	104	43	68	65	57	14	465

TABLE II.

Deaths Registered in St. Olave's District in the Year ending March 26th, 1859.

CAUSES OF DEATH.	AGES.							Total at all Ages.
	Under 1 Year.	1 Year & under 5.	5, & under 20.	20 & under 40.	40 & under 60.	60 & under 80.	80 & upwards	
I. ZYMOTIC—								
Small Pox	..	1	..	..	..	..	..	1
Measles	7	21	..	..	..	..	..	28
Scarlatina	..	12	2	..	..	..	..	14
Diphtheria	..	..	..	..	.	..	..	..
Whooping Cough	2	10	1	..	..	..	..	13
Croup	1	1	..	..		..	..	2
Thrush	1	..	..	..	..	..	..	1
Diarrhœa	13	3	..	2	..	..	..	18
Dysentery	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..
Influenza	..	..	..	..	..	..	..	..
Purpura	..	..	..	..	..	..	..	..
Ague	1	..	..	..	..	..	..	1
Remittent Fever	..	1	3	..	..	..	..	4
Infantile Fever	..	..	..	..	..	..	..	..
Typhus Fever	..	4	2	1	3	..	..	10
Puerperal Fever (Metria)	..	..	..	1	..	..	..	1
Rheumatic Fever	..	..	1	..	1	1	..	2
Erysipelas	1	..	..	1	1	..	..	4
Syphilis	..	..	..	..	..	..	..	..
Noma, or Canker	..	..	..	1	..	..	..	1
Hydrophobia	..	..	..	..	..	..	..	..
II. DROPSY, and Diseases of Uncertain Seat—								
Hœmorrhage	..	..	..	1	..	..	..	1
Dropsy	..	4	2	..	..	..	..	6
Abscess	..	..	..	1	..	..	..	1
Ulcer	..	..	..	..	..	..	..	..
Fistula	..	..	..	..	1	..	..	1
Mortification	..	..	..	..	..	..	..	..
Cancer	..	..	..	1	1	4	..	6
Gout	..	..	..	..	..	..	..	..
III. TUBERCULAR CLASS—								
Scrofula	..	1	1	..	..	..	...	2
Tabes Mesenterica (Abdominal Consumption)	17	9	3	..	..	..	..	29
Phthisis (Pulmonary Consumption)	..	1	7	32	16	1	..	57
Hydrocephalus (Water on the Brain)	8	4	..	.	..	..	..	12
IV. BRAIN AND NERVES—								
Cephalitis	..	..	2	..	..	..	..	2
Apoplexy	..	..	..	..	1	4	1	6
Paralysis	..	..	..	1	1	5	..	7
Delirium Tremens	..	..	..	1	..	..	..	1
Chorea	..	..	..	..	..	..	..	..
Tetanus	1	..	..	..	..	..	..	1
Insanity	..	..	..	..	..	..	..	..
Convulsions	17	9	..	..	..	..	..	26
Disease of Brain, Spinal Marrow, &c.	4	1	..	3	3	5	..	16
V. HEART AND BLOOD VESSSELS—								
Pericarditis	..	..	..	..	..	..	..	..
Aneurism	..	..	..	..	...	..	..	..
Disease of Heart, &c.	1	..	1	4	7	5	..	18
VI. LUNGS & ORGANS OF RESPIRATION—								
Laryngitis	..	1	..	..	..	..	..	1
Bronchitis	10	13	4	..	9	18	2	56
Pleurisy	..	..	..	..	..	..	..	..
Pneumonia	9	5	..	2	3	1	..	20
Asthma	..	..	..	2	..	2	..	4
Disease of Lungs, &c.	..	..	..	..	1	..	..	1

TABLE II.—*continued.*

CAUSES OF DEATH.	AGES.							Total at all Ages.
	Under 1 Year.	1 Year & under 5.	5 & under 20.	20 & under 40.	40 & under 60.	60 & under 80.	80 & upwards.	
VII. DIGESTIVE ORGANS—								
Teething	5	1	..	..	..	..	..	6
Quinsy	..	..	..	..	..	..	..	..
Gastritis	..	..	..	..	..	..	..	.
Enteritis	1	..	..	..	..	..	..	1
Peritonitis	..	..	..	1	..	..	..	1
Ascites	..	..	..	..	1	..	..	1
Ulceration of Intestine	..	..	..	..	..	..	..	..
Hernia (Rupture)	..	..	..	..	..	..	..	..
Ileus	..	..	..	..	1	..	..	1
Intussusception	..	..	..	..	..	..	..	..
Stricture of the Intestinal Canal	1	..	..	..	..	..	..	1
Disease of the Stomach, &c.	1	..	..	..	..	..	..	1
Disease of Pancreas	..	..	..	..	..	..	..	..
Hepatitis (Inflammation of Liver)	..	..	1	1	2	1	1	6
Jaundice	..	..	..	..	..	1	..	1
Disease of Liver	..	..	..	1	2	..	..	3
Disease of Spleen	..	..	..	..	..	..	..	..
VIII. KIDNEY, &c.—								
Nephritis	..	1	..	..	..	..	..	1
Nephria (Bright's Disease)	..	..	1	3	1	2	..	7
Ischuria	..	..	..	..	..	..	..	..
Diabetes	..	..	..	..	..	..	..	..
Stone	..	..	..	..	..	..	..	..
Cystitis	..	..	..	..	..	..	..	..
Stricture of Urethra	..	..	..	..	..	..	..	..
Disease of Kidneys, &c.	..	..	..	..	..	..	..	..
Disease of Prostate Gland	..	..	..	..	..	..	..	..
IX. UTERUS—								
Puerperal Disease	..	..	..	..	..	..	..	..
Paramenia	..	..	..	..	..	..	..	..
Ovarian Dropsy	..	..	..	..	..	..	..	..
Childbirth	..	..	..	..	.	..	..	..
Disease of Uterus, &c.	..	..	..	..	1	..	..	1
X. JOINTS, BONES, &c.—								
Arthritis	..	..	..	..	..	..	..	..
Rheumatism	..	..	1	..	1	2	2	6
Disease of Joints, &c.	..	1	4	..	..	..	..	5
XI. SKIN, &c.—								
Carbuncle	..	..	..	..	..	..	.	..
Phlegmon	..	..	..	..	..	..	..	..
Disease of Skin, &c.	..	..	..	..	..	..	..	..
XII. MALFORMATION	1	..	..	..	..	..	..	1
XIII. DEBILITY, from Premature Birth, &c.	8	..	..	..	..	..	..	8
XIV. ATROPHY (Wasting)	..	..	..	..	..	..	..	..
XV. OLD AGE	..	...	..	..	1	2	8	11
XVI. SUDDEN	..	..	..	..	..	..	..	..
XVII, VIOLENCE, Privation, &c.	..	..	..	..	..	..	..	..
Intemperance	..	..	..	.	..	..	..	..
Privation of Food	.	..	..	..	..	..	..	..
Want of Breast Milk	2	..	..	..	..	..	..	2
Neglect	..	..	..	..	..	..	..	..
Cold	..	..	..	..	..	..	..	..
Poison	..	..	..	..	..	..	..	..
Burns and Scalds	..	..	..	1	1	..	..	2
Hanging, &c.	..	.	..	..	..	..	..	..
Suffocation, &c.	2	..	..	.	..	..	..	2
Drowning	..	..	5	3	1	2	..	11*
Fractures	..	..	1	2	3	..	..	6
Wounds	..	..	..	..	..	..	..	..
Other Violence	..	..	1	1	1	1	..	4
XVIII. CAUSES NOT SPECIFIED	..	..	...	1	1	..	..	2
	114	104	43	68	65	57	14	465

* The whole of these were found dead in the Thames.

TABLE III.

Births and Deaths in the Year ending March 26th, 1859.

Sub-Districts.	Population in 1851.		BIRTHS.			DEATHS.			Excess of Births over Deaths.
			Male.	Female	Total.	Male.	Female	Total.	
St. Olave and St. Thomas.	8015	1st Quarter.	23	30	53	22	23	45	8
		2nd Quarter.	31	26	57	31	28	59	*...
		3rd Quarter.	30	26	56	21	15	36	20
		4th Quarter.	30	25	55	20	15	35	20
St. John.	11,360	1st Quarter.	38	46	84	48	27	75	9
		2nd Quarter.	40	48	88	36	43	79	9
		3rd Quarter.	58	38	96	30	47	77	19
		4th Quarter.	66	57	123	29	30	59	64
		Total.	316	296	612	237	228	465	149
		*Deduct Excess of Deaths this Quarter...							2
									147

TABLE IV.

General Summary of House Improvements.

Number of Houses Inspected.	Drains.			Cess-pools.	Water-closets			Dust-Bins.	Yards.		General Water Supply.		General Improvements.		
	Number Constructed.	Improved or Repaired.	Traps Fixed.	Abolished.	Pans and Traps Furnished.	New Ones Constructed.	Water Supply Provided.	New Ones Constructed.	Paved or Repaired.	Lime-Washed.	Receptacles Provided.	Water Supply Provided or Improved.	Cleansed Partially.	Cleansed Thoroughly and Lime-Washed.	Ventilated.
608	107	61	132	35	48	9	161	132	156	87	93	...	...	78	15